**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission 39

Application Number	10/727,929
Filing Date	December 3, 2003
First Named Inventor	Wen-Bin Yan
Art Unit	2877
Examiner Name	
Attorney Docket No.	TGR-105US

**ENCLOSURES (Check all that apply)**

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/Declaration(s)<br><br><input type="checkbox"/> Extension of Time Request<br><br><input type="checkbox"/> Express Abandonment Request<br><br><input checked="" type="checkbox"/> Information Disclosure Statement<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><br><input type="checkbox"/> Response to Missing Parts/<br>Incomplete Application<br><br><input type="checkbox"/> Response to Missing Parts under<br>37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a<br>Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation,<br>Change of Correspondence<br>Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance Communication<br>to Group<br><input type="checkbox"/> Appeal Communication to Board<br>of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to Group<br>(Appeal Notice, Brief, Reply<br>Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please<br>identify below):<br><br>Return Postcard<br>6 References |
|---|--|---|

**Remarks:****SIGNATURE OF APPLICANT, ATTORNEY OR AGENT**

Firm or Individual	Jacques L. Etkowicz	Registration No. (Attorney/Agent)	41,738
Signature			
Date	March 12, 2004		

**CERTIFICATE OF TRANSMISSION / MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date:

March 12, 2004

Name (Print/Type) Kathleen Carney

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Date March 12, 2004

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appln. No: 10/727,929  
Applicant: Wen-Bin Yan  
Filed: December 03, 2003  
Title: DEVICE AND METHOD OF TRACE GAS ANALYSIS USING  
CAVITY RING-DOWN SPECTROSCOPY  
TC/A.U.: 2877  
Examiner:

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO 1449 (R&P) submitted herewith. A copy of each of the listed non-patent references is also enclosed.

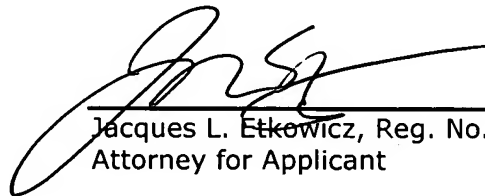
Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

This Information Disclosure Statement is being filed before mailing of the first Official Action. No first Official Action has yet been received and it is presumed that none has yet been mailed. No fee or statement is required. 37C.F.R. § 1.97(b).

Respectfully submitted,

RatnerPrestia



Jacques L. Etkowicz, Reg. No. 41,738  
Attorney for Applicant

JLE/kc

Enclosures: PTO Form 1449  
(6) References  
Transmittal

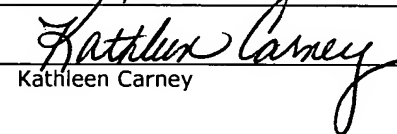
Dated: March 12, 2004

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Valley Forge, PA 19482  
(610) 407-0700

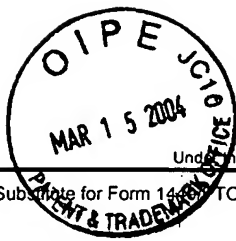
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**March 12, 2004**

  
Kathleen Carney

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Substitute for Form 1449, PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

SHEET 1 of 2

### Complete if Known

Application Number	10/727,929
Filing Date	December 03, 2003
First Named Inventor	Wen-Bin Yan
Art Unit	2877
Examiner Name	
Attorney Docket No.	TGR-105US

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
		US-5,528,040	06/18/1996	Lehmann	Entire Document
		US-5,973,864	10/26/1999	Lehmann et al.	Entire Document
		US-6,040,915	03/21/00	Wu et al.	Entire Document
		US-6,466,322 B1	10/15/2002	Paldus et al.	Entire Document
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### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
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Signature

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<sup>1</sup>Applicant's unique citation designation number (optional).

<sup>2</sup>See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

<sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard St.3).

<sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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**Complete if Known**

Application Number	10/727,929
Filing Date	December 3, 2003
First Named Inventor	Wen-Bin Yan
Art Unit	2877
Examiner Name	
Attorney Docket No.	TGR-105US

SHEET 2 of 2

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
		RICHARD ENGELN and GIEL BERDEN, "Cavity Ring Down Absorption Spectroscopy", May 22, 2001, pages 1-9	<input type="checkbox"/>
		RICHARD ENGELN and GERARD MEIJER, "A Fourier Transform Cavity Ring Down Spectrometer", Rev. Sci. Instrum. 67,2708 (1996), Dept. of Molecular and Laser Physics, University of Nijmegen, pages 1-7	<input type="checkbox"/>
		A.J. HALLOCK, E.S.F. BERMAN, and R.N. ZARE, "Use of Broadband, Continuous-Wave Diode Lasers in Cavity Ring-Down Spectroscopy for Liquid Samples", January 10, 2003, Applied Spectroscopy, Vol. 57, No. 5. 2003, pages 571-573	<input type="checkbox"/>
		ALEXANDER J. HALLOCK, ELENA S.F. BERMAN, AND RICHARD N. ZARE, "Ultratrace Kinetic Measurements of the Reduction of Methylene Blue", August 13, 2002, J. AM. CHEM. SOC. Vol. 125, No. 5. 2003, pages 1158-1159	<input type="checkbox"/>
		K. J. SCHULZ and W. R. SIMPSON, "Frequency-Matched Cavity Ring-Down Spectroscopy", Chem. Phys. Lett. October 14, 1998, Geophysical Institute and Chemistry Department, University of Alaska Fairbanks, pages 1-9, Figure 1	<input type="checkbox"/>
		"Use of Broadband Light Source for CRDS", Office of Technology Licensing, Stamford University, Stamford Reference S02-221, 3 pages	<input type="checkbox"/>
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Examiner  
SignatureDate  
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<sup>1</sup>Applicant's unique citation designation number (optional).

<sup>2</sup>Applicant is to place a check mark here if English language translation is attached.

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